



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/589,847

08/18/2006

Anja Gerhard

14113-00051-US

3553

23416

7590

09/29/2008

CONNOLLY BOVE LODGE & HUTZ, LLP

P O BOX 2207

WILMINGTON, DE 19899

EXAMINER

WILSON, MICHAEL H

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

09/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/589,847	Applicant(s) GERHARD ET AL.	
	Examiner MICHAEL WILSON	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060818</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 8 is objected to because of the following informalities: The claim refers to claim 1 twice. Dependent claims should only refer the claim from which it depends once. The phrase “where R² and R³ have the same meaning as described in Claim 1” can be deleted from claim 8 without changing the scope or clarity of the claim because symbols in a dependent claim retains the meaning from the preceding claim, unless further narrowed by the present claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: example structures 1 to 28. The claim should not refer the specification, but should contain all the essential elements of the claim, including chemical structures.

3. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 7, it is unclear how a carbonyl group, which can only be divalent can possess a branched or dendrimatic arrangement. For the purpose of the action the claim is interpreted as the compound of instant formula (1) possesses a linear, branched or dendrimatic arrangement.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8 and 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (US 2003/0008174 A1).

Regarding claims 1-3 and 5, Suzuki et al. discloses an electronic device, which is an organic electroluminescent device ([0001]-[0002]), comprising a cathode, anode [0015] and at least one organic layer between the electrodes ([0016]-[0017]) comprising a compound of instant formula (1) [0021]. The reference also discloses the device further comprising a fluorescent emitter [0098] without a phosphorescent emitter.

Regarding the absorption edge of the compound, while the reference does not explicitly disclose the absorption edge, the compounds of Suzuki et al. are within the formula of compounds claimed by applicant as possessing the absorbance property. Therefore since the compounds disclosed by Suzuki et al. being within the formula

Art Unit: 1794

claimed by applicant, the absorbance edge of the compounds would be expected inherently to have the same properties as disclosed by applicant. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773. Applicant bears responsibility for proving that reference composition does not possess the characteristics recited in the claims. In *re Fitzgerald*, 205 USPQ 597, In *re Best*, 195 USPQ 430.

Regarding claim 4, Suzuki et al. disclose all the claim limitations as set forth above. While the reference does not explicitly disclose the glass transition temperatures for the compounds of Suzuki et al. the compounds are within the formula disclosed by applicant as having a glass transition temperature of greater than 80°C. Therefore since the compounds disclosed by Suzuki et al. are within the formula claimed by applicant, the glass transition temperature of the compounds would be expected inherently to have the same properties as disclosed by applicant. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773. Applicant bears responsibility for proving that reference composition does not possess the characteristics recited in the claims. In *re Fitzgerald*, 205 USPQ 597, In *re Best*, 195 USPQ 430.

Regarding claim 6, Suzuki et al. disclose all the claim limitations as set forth above. Additionally the reference discloses wherein the compound contains more than one carbonyl group [0020].

Regarding claims 7 and 8, Suzuki et al. disclose all the claim limitations as set forth above. Additionally the reference discloses wherein the carbonyl has a branched or dendrimatic arrangement (compounds 26-30, pages 8-10) and wherein the compound of instant formula (1) is also a compound of instant formula (3) [0020].

Regarding claims 10 and 11, Suzuki et al. disclose all the claim limitations as set forth above. Additionally the reference discloses wherein the compound is an electron transporting compound within the electron transporting layer ([0051] and [0098]). The recitation that “the compound of formula (1) is employed as” does not confer patentability to the claim since the recitation of an intended use does not impart patentability to otherwise old compounds or compositions. *In re Tuominen*, 671 F.2d 1359, 213 USPQ 89 (CCPA 1982).

Regarding claims 12 and 13, Suzuki et al. disclose all the claim limitations as set forth above. Additionally the reference discloses wherein the compound comprises at least 50% of the layers composition or 100% of the layer [0098].

Regarding claim 14, Suzuki et al. disclose all the claim limitations as set forth above. Additionally the reference discloses wherein the device fluorescent emitter compound emits blue light [0100], which is within the range of 380-750 nm.

3. Claims 1-8, 10, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kikuchi (JP 06/192654 A).

Regarding claims 1-3 and 5, Kikuchi discloses an electronic device, which is an electroluminescent device [0001], comprising a cathode, anode [0008] and at least one organic layer between the electrodes wherein the layer comprises at least one compound of instant formula (1) ([0011], [0013]-[0020] compounds 1, 2, 11, 14, 16, 19, 20, 22, 26, 28, 34, 38, and 40). The reference also discloses the device further comprising a fluorescent emitter [0034] without a phosphorescent emitter.

Regarding the absorption edge of the compound, while the reference does not explicitly disclose the absorption edge the compounds of Kikuchi are within the formula of compounds claimed by applicant as possessing the absorbance property. Therefore since the compounds disclosed by Kikuchi being within the formula claimed by applicant, the absorbance edge of the compounds would be expected inherently to have the same properties as disclosed by applicant. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims.

General Electric v. Jewe Incandescent Lamp Co., 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773. Applicant bears responsibility for proving that reference composition does not possess the characteristics recited in the claims. In *re Fitzgerald*, 205 USPQ 597, In *re Best*, 195 USPQ 430.

Regarding claim 4, Kikuchi disclose all the claim limitations as set forth above. While the reference does not explicitly disclose the glass transition temperatures for the compounds of Kikuchi, the compounds are within the formula disclosed by applicant as

having a glass transition temperature of greater than 80°C. Therefore since the compounds disclosed by Kikuchi being within the formula claimed by applicant, the glass transition temperature of the compounds would be expected inherently to have the same properties as disclosed by applicant. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773. Applicant bears responsibility for proving that reference composition does not possess the characteristics recited in the claims. In *re Fitzgerald*, 205 USPQ 597, In *re Best*, 195 USPQ 430.

Regarding claim 6, Kikuchi disclose all the claim limitations as set forth above. Additionally the reference discloses wherein the compound contains more than one carbonyl group ([0013] compound 11).

Regarding claims 7 and 8, Suzuki et al. disclose all the claim limitations as set forth above. Additionally the reference discloses wherein the carbonyl has a linear arrangement ([0011], [0013]-[0020] compounds 1, 2, 11, 14, 16, 19, 20, 22, 26, 28, 34, 38, and 40) and wherein the compound of instant formula (1) is also a compound of instant formula (2) ([0013] compound 11).

Regarding claim 10, Kikuchi discloses all the claim limitations as set forth above. Additionally the reference discloses wherein the compound may be an electron transporting compound [0023] and comprises a light-emitting layer [0034]. The recitation that “the compound of formula (1) is employed as” does not confer patentability to the claim since the recitation of an intended use does not impart

patentability to otherwise old compounds or compositions. *In re Tuominen*, 671 F.2d 1359, 213 USPQ 89 (CCPA 1982).

Regarding claims 12 and 13, Kikuchi discloses all the claim limitations as set forth above. Additionally the reference discloses wherein the compound comprises at least 50% of the layers composition or 100% of the layer [0034].

Regarding claim 14, Kikuchi discloses all the claim limitations as set forth above. While the reference does not explicitly disclose the wavelength of light emitted by the device of Kikuchi, the reference discloses a light-emitting device which emits visible light. Therefore the light emitted by the device of Kikuchi would necessarily fall within the range of 380-750 nm, the visible spectrum.

4. Claims 1-5, 7, and 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Tominaga et al. (US 2003/0168970 A1).

Regarding claims 1-3 and 5, Tominaga et al. discloses an electronic device, which is an organic electroluminescent device [0008], comprising a cathode, anode [0008] and at least one organic layer between the electrodes ([0016]-[0017]) comprising a compound of instant formula (1) ([0061], [0067] 4th compound) .The reference also discloses the device further comprising a fluorescent emitter [0114] without a phosphorescent emitter.

Regarding the absorption edge of the compound, while the reference does not explicitly disclose the absorption edge the compounds of Tominaga et al. are within the formula of compounds claimed by applicant as possessing the absorbance property.

Therefore since the compounds disclosed by Tominaga et al. are within the formula claimed by applicant, the absorbance edge of the compounds would be expected inherently to have the same properties as disclosed by applicant. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773. Applicant bears responsibility for proving that reference composition does not possess the characteristics recited in the claims. *In re Fitzgerald*, 205 USPQ 597, *In re Best*, 195 USPQ 430.

Regarding claim 4, Tominaga et al. disclose all the claim limitations as set forth above. Additionally the reference discloses the glass transition temperature for the compounds is greater than 90°C [0019].

Regarding claim 7, Tominaga et al. disclose all the claim limitations as set forth above. Additionally the reference discloses wherein the carbonyl has a linear arrangement ([0067] 4th compound).

Regarding claims 10 and 11, Suzuki et al. disclose all the claim limitations as set forth above. Additionally the reference discloses wherein the compound is an electron transporting compound within the electron transporting layer ([0017] and [0114] note: the electron transport layer composed of a compound of formula 1 [0011]). The recitation that “the compound of formula (1) is employed as” does not confer patentability to the claim since the recitation of an intended use does not impart patentability to otherwise old compounds or compositions. *In re Tuominen*, 671 F.2d 1359, 213 USPQ 89 (CCPA 1982).

Art Unit: 1794

Regarding claims 12 and 13, Tominaga et al. disclose all the claim limitations as set forth above. Additionally the reference discloses wherein the compound comprises at least 50% of the layers composition or 100% of the layer [0114].

Regarding claim 14, Tominaga et al. disclose all the claim limitations as set forth above. Additionally the reference discloses wherein the device fluorescent emitter compound emits light within the range of 380-750 nm (tables 1 and 2, page 31-35).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-10, 12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shi et al. (US 5,755,999) in view of Gerhard et al. (WO 2004/093207 A2) the English equivalent US 7,645,301 B2 is relied upon.

Regarding claims 1-10, 12, and 14, Shi et al. disclose an electronic device, which is an organic electroluminescent device (column 1, lines 22-24) comprising a cathode, anode (column 3, lines 39-50) and at least one organic layer between the electrodes (column 3, lines 39-50). The reference also discloses the device further comprising a fluorescent emitter (examples 14-16, columns 39 and 40) without a phosphorescent emitter (column 7, lines 31-41). Additionally the reference discloses devices with light-emission in the visible region between 380 and 750 nm (column 1, lines 59-64). However the reference does not explicitly disclose a host material of instant formula (1).

Gerhard et al. teach a similar organic electroluminescent device. The reference teaches compounds of instant formula (1) (columns 15, 17, 19, and 31-37; compounds 9, 11, 15, and 37-43) may be used as host materials for the light-emitting layer of an electroluminescent device (column 12, lines 62-67). The compounds of Gerhard contain one or more carbonyls, conforming to instant formulae (2) or (3), with linear or dendrimatic arrangements (columns 15, 17, 19, and 31-37; compounds 9, 11, 15, and 37-43) and teach the compounds may comprise 70-95% of the layer (column 52, lines 12-14; column 59, table 2, examples 1d and 1e). Additionally the reference teaches compounds of instant formula (1) to have a glass transition temperature of greater than 100°C (column 4, lines 62-64). The reference teaches using compounds of instant formula (1) with a luminescent compound that contains an element with an atomic number greater than 20 results in greatly increased lifetime for the device.

Regarding the absorption edge of the compound, while the reference does not explicitly disclose the absorption edge the compounds of Gerhard et al. are within the

Art Unit: 1794

formula of compounds claimed by applicant as possessing the absorbance property. Therefore since the compounds disclosed by Gerhard et al. are within the formula claimed by applicant, the absorbance edge of the compounds would be expected inherently to have the same properties as disclosed by applicant. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773. Applicant bears responsibility for proving that reference composition does not possess the characteristics recited in the claims. In *re Fitzgerald*, 205 USPQ 597, In *re Best*, 195 USPQ 430.

It would be obvious to one of ordinary skill in the art at the time of the invention to combine the host material of Gerhard et al. with the device of Shi et al. One of ordinary skill in the art would reasonably expect such a combination to be suitable given the at the host material of Gerhard is taught to be suitable for use in electroluminescent devices and is also taught to be suitable for use with luminescent compound that contains an element with an atomic number greater than 20 results. Shi et al. teach luminescent compounds with an element with an atomic number greater than 20 (column 12, lines 26-30). One of ordinary skill in the art would be motivated by a desire to obtain a device with greatly increased lifetime for the device.

Regarding the recitation "the compound of formula (1) is employed as" the recitation of intended use does not confer patentability to the claim since the recitation of an intended use does not impart patentability to otherwise old compounds or compositions. In *re Tuominen*, 671 F.2d 1359, 213 USPQ 89 (CCPA 1982).

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tominaga et al. (US 2003/0168970 A1).

Regarding claim 8, Tominaga et al. disclose all the claim limitations as set forth above. Additionally the reference discloses wherein the compound of instant formula (1) is preferably substituted at the R2, R7, R10 or R15 positions ([0065], diagram of position assignments in [0061]). The reference also explicitly disclose the derivative of instant formula (4) where the structure is disubstituted in the R2 and R10 positions ([0067] 4th structure). While the reference does not explicitly disclose an example of a compound of instant formula (1) disubstituted in the R10 and R15 positions as shown in instant formula (4) such a compound would be obvious to one of ordinary skill in the art at the time of the invention. One of ordinary skill in the art would reasonably expect such a compound to have similar properties and be suitable for the same purpose given the disclosure of Tominaga et al. which discloses the R10 and R15 positions as suitable and that a disubstituted compound is also suitable ([0065]-[0067]). One of ordinary skill in the art would be motivated by a desire to produce new compounds suitable for the prior art and guided by the teachings of the prior art arriving at compounds of instant formula (4).

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

Art Unit: 1794

obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-10, 12, and 14 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 and 15-18 of U.S. Patent No. 7,345,301 B2 in view of Shi et al. (US 5,755,999).

While the claims are not identical they are not patentably distinct. Patent No. 7,345,301 B2 discloses organic electroluminescent device with an anode, cathode and at least one organic layer between the electrodes (claim 18) with a compound of instant formula (1) (matrix material A). Host material A is further formula (1) wherein X is oxygen and R¹ and R² are aryls (claim 4), overlapping with instant claims 1. The compounds may contain one or more carbonyls (claims 4 and 5) overlapping with instant formulae (2) and (3) (claim 8). The matrix material A may be linear, branched or dendrimatic because of the large amount of optional substitution in claims 4 and 5. Matrix material A may comprise 99 to 1% of the organic layer (claim 15). Additionally the reference claims a glass transition temperature greater than 70°C (claim 3) which

Art Unit: 1794

overlaps with instant claim 4 (80°C or greater). The reference discloses using compounds of instant formula (1) with a luminescent compound that contains an element with an atomic number greater than 20 results in greatly increased lifetime for the device, but does not disclose fluorescent compounds for material B used with matrix material A.

Shi et al. teach a similar organic electroluminescent device (column 1, lines 22-24). The reference also discloses the device further comprising a fluorescent emitter (examples 14-16, columns 39 and 40) without a phosphorescent emitter (column 7, lines 31-41). Additionally the reference discloses devices with light-emission in the visible region between 380 and 750 nm (column 1, lines 59-64). Shi et al. teach luminescent compounds with an element with an atomic number greater than 20 (column 12, lines 26-30). The reference teaches using the compounds of Shi et al. produces highly efficient electroluminescence (column 1, lines 59-64).

It would be obvious to one of ordinary skill in the art at the time of the invention to combine the device of Gerhard et al. (U.S. Patent No. 7,345,301 B2) with the emissive compounds of Shi et al. One of ordinary skill in the art would reasonably expect such a combination to be suitable given the at the host material of Gerhard is taught to be suitable for use in electroluminescent devices and is also taught to be suitable for use with luminescent compound that contains and element with an atomic number greater than 20 results. Shi et al. teach luminescent compounds with an element with an atomic number greater than 20 (column 12, lines 26-30). One of ordinary skill in the art

Art Unit: 1794

would be motivated by a desire to obtain a device with highly efficient electroluminescence as taught by Shi et al. (column 1, lines 59-64).

Regarding the absorption edge of the compounds, while the reference does not explicitly disclose the absorption edge the compounds of Gerhard et al. (U.S. Patent No. 7,345,301 B2) are within the formula of compounds claimed by applicant as possessing the absorbance property. Therefore since the compounds disclosed by Gerhard et al. are within the formula claimed by applicant, the absorbance edge of the compounds would be expected inherently to have the same properties as disclosed by applicant.

11. Claims 1-10, 12, and 14 are directed to an invention not patentably distinct from claims 1-6 and 15-18 of commonly assigned U.S. Patent No. 7,345,301 B2. Specifically, as explained above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned U.S. Patent No. 7,345,301 B2, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kikuchi et al. (US 5,378,519), Enokida et al. (EP 786926 A), Fukuyama et al. (EP 650955 A), Agata et al. (JP 2002/260863 A), Himeshima et al. (JP H08/143862), Bagala et al. (WO 2004/013080 A1), each disclose compounds for use in organic electroluminescent devices which meet instant formula (1) however each is cumulative with the rejections of record.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL WILSON whose telephone number is (571) 270-3882. The examiner can normally be reached on Monday-Thursday, 7:30-5:00PM EST, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MHW

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794